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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,478

06/01/2006

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EXAMINER

CHAWAN, SHEELA C

ART UNIT

PAPER NUMBER

2624

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DELIVERY MODE

05/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,478	Applicant(s) LU, CUNWEI	
	Examiner SHEELA C. CHAWAN	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1- 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/1/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 6/1/06, the information disclosure statement is being considered by the examiner.

Drawings

3. Drawings are missing .

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1- 4 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. The Federal Circuit¹, relying upon Supreme Court precedent², has indicated that a statutory “process” under 35 U.S.C. 101 must (1) be tied to a particular machine or apparatus, or (2) transform a particular article to a different state or thing. This is referred to as the “machine or transformation test”, whereby the recitation of a particular machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility (See *Benson*,

¹ *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

² *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

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409 U.S. at 71-72), and the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity (See *Flook*, 437 U.S. at 590"). While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform an article nor positively tie to a particular machine that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Nafis et al., (US.6,519,359B1).

As to claim 1, Nafis discloses a non-contact three-dimensional measuring method comprising:

photographing an object with a digital camera from vertically spaced multiple points and determining the length between multiple measured points or the area or volume of a portion surrounded by said multiple measured points based on the position of the multiple measured points on the object in photographed multiple images and the height difference between said multiple photographing points(column 1, lines 63-65,

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column 2, lines 42-43, 56-61, explains non-contact method for 3-D measuring of an object and processing data to obtain a three-dimensional surface topography of an object this is based on (column 4, lines 28- 40) multiple images of the object at several Z dimension levels).

As to claim 2, Nafis discloses the non-contact three-dimensional measuring method described in claim 1, in which a digital camera is mounted on a pan head at the top of a tripod, an object is photographed with the digital camera from multiple points obtained by vertically moving the pan head, the photographed multiple images and height information of the multiple photographing points are input to a computer, and the computer performs computation by clicking the multiple measured points on the object in one of said multiple images shown on a display attached to the computer (column 7, lines 30- 37, column 8, lines 13-23, 34- 38, explains the camera mount and changing the position of camera either manually or automatically by a robotic to obtain scan images automatically , also see fig 1, element 12, column 8, lines 30- 33).

As to claim 3, Nafis discloses a non-contact three-dimensional measuring apparatus comprising a digital camera to take photographs of an object, a device to vertically move and fasten said camera at desired photographing points, a computer to determine the length between multiple measured points on the object or the area or volume of a portion thereof surrounded by said measured points based on the level information of said multiple photographing points and multiple photographed images, and a display attached to said computer for displaying said images and instructing the start of computation by clicking said measured points (column 7, lines 30- 37, column

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8, lines 13- 23, 29-32 explains the control of the movement of camera to photograph at various position to obtain a defined location on the object (fig 1, element 30.display device).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nafis et al., (US.6,519,359B1), as applied to claims 1-3 above and further in view of Nakatani (US.5,341,185, Listed in IDS filed on 6/1/06).

Nafis discloses a method and system for acquiring a three-dimensional surface image of an object using a range camera. Nafis is silent about camera comprises a tripod and a vertically movable pan head.

Nakatani discloses a tripods of the type used for supporting video or photo equipment and, more particularly, relates to an assembly for applying controlled friction for smooth operation of the rack and pinion mechanism which raises and lowers the center column of the tripod. The system comprises of :

in which the device to vertically move and fasten the camera comprises a tripod and a vertically movable pan head. (column 4, lines 60- 68).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nafis to include camera comprises a tripod and a vertically movable pan head. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Nafis by the teaching of Nakatani in order to provide an easy to use tripod in which an appropriate resistance to the motion of the center column is reliably maintained (as suggested by Nakatani at column 2, lines 3- 6).

Other prior art cited

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Uemura et al., (US.5,568,258) discloses method and device for measuring distortion of a transmitting beam or a surface shape of a three-dimensional object. three-dimensional shape measurement technique.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Friday 8.30 am - 5.00 pm and every Wednesday work from home. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on 571-272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sheela C Chawan/

5/8/09

Primary Examiner, Art Unit 2624